

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) Magnetic conditioning device for diesel engine fuel, comprising:

~~characterised in that it comprises~~

a housing element configured to be [[,]] placed along the a fuel feeding line,

the housing element having a fuel inlet, and a fuel outlet, and ~~providing~~ a wall septum in correspondence ~~of~~ with the fuel inlet; and

two opposed magnetic elements located within the housing element, the two opposed magnetic elements inducing a magnetic field between the two opposed magnetic elements and along an obliged flowing fuel path between the fuel inlet and the fuel outlet,

the septum configured to turbulently deviate the inlet fuel entering the fuel inlet around the septum and along the an obliged flowing fuel path through the magnetic field induced by
~~for the fuel, being provided at least two opposed magnetic elements, along said obliged path, inducing a magnetic field on the flowing fuel.~~

2. (original) Magnetic conditioning device for diesel engine fuel according to claim 1, characterised in that said device provides a central cylindrical hub.

3. (currently amended) Magnetic conditioning device for diesel engine fuel according to claim 2, characterised in that said obliged fuel flowing path has such a shape to ensure a long passage of the fuel within the device.

4. (currently amended) Magnetic conditioning device for diesel engine fuel according to claim 1, characterised in that the magnetic elements comprise ~~field is created by~~ permanent magnets.

5. (original) Magnetic conditioning device for diesel engine fuel according to claim 4, characterised in that said permanent magnets are comprised of neodymium magnets, having a protective anti-corrosion coating.

6. (currently amended) Magnetic conditioning device for diesel engine fuel according to claim ~~[[1]]~~ 4, characterised in that said permanent magnets are comprised of ferrite.

7. (withdrawn-currently amended) Magnetic conditioning device for diesel engine fuel according to claim 1, characterised

in that the magnetic elements are comprised of two permanent magnets ~~are provided~~ mounted opposed each other, said magnets having an opposed polarisation on the faces faced toward the obliged fuel flowing path ~~flow~~.

8. (withdrawn-currently amended) Magnetic conditioning device for diesel engine fuel according to claim 1, characterised in that said magnetic elements are comprised of two ferromagnetic opposed elements, on each of which two ferromagnetic opposed elements permanent magnets are provided.

9. (withdrawn-currently amended) Magnetic conditioning device for diesel engine fuel according to claim 8, characterised in that said ~~permanent magnets~~ two ferromagnetic opposed elements are comprised of ~~integral tablets or rings~~ on which the permanent magnets are provided, the rings having an opposed polarisation of the faces faced toward the obliged fuel flowing path ~~flow~~.

10. (withdrawn-currently amended) Magnetic conditioning device for diesel engine fuel according to claim 8, characterised in that said ~~permanent magnets~~ two ferromagnetic opposed elements are comprised of ~~integral tablets or rings~~ [[,]] having an alternate polarisation between the permanent magnets placed side by side on the same ferromagnetic material, ~~being~~ the provided

permanent magnets having an opposed polarity respectively facing
~~opposed-faced~~ each other.

11. (withdrawn-currently amended) Magnetic conditioning device for diesel engine fuel according to claim 8, characterised in that said permanent magnets ~~are flue with the ferromagnetic material or projecting~~ project inwardly into the obliged fuel flowing path with respect to the two ferromagnetic opposed elements same.

12. (withdrawn-currently amended) Magnetic conditioning device for diesel engine fuel according to claim 8, characterised in that said two ferromagnetic opposed ~~permanent magnetic~~ elements each have a horseshoe shape.

13. (currently amended) Magnetic conditioning device for diesel engine fuel according to claim 1, ~~characterised in that said device provides~~ further comprising a lower portion and an upper lid portion, ~~or lid,~~ removably coupled to each other.

14. (withdrawn-currently amended) Magnetic conditioning device for diesel engine fuel according to claim 1, ~~characterised in that~~ further comprising turbulence-causing projecting elements projecting into the obliged flowing fuel path ~~are provided, preferably metallic elements provided inside the container.~~

15. (withdrawn-currently amended) Magnetic conditioning device for diesel engine fuel according to claim 14, characterised in that said projecting elements are provided on the two opposed magnetic elements ~~one or both the inner surfaces of the device.~~

16. (withdrawn-currently amended) Magnetic conditioning device for diesel engine fuel according to claim 1, ~~characterised in that it is provided~~ further comprising an atmosphere vent.

17. (currently amended) Magnetic conditioning device for diesel engine fuel according to claim 1, characterised in that said ~~device is comprised of~~ housing element defines a central body located between ~~and two lids, respectively an upper lid~~ and a lower lid.

18. (cancelled)

19. (new) Magnetic conditioning device for diesel engine fuel, comprising:

a housing element with a fuel inlet, a fuel outlet, walls, a cylindrical hub, and a septum located at the fuel inlet to deviate fuel entering the fuel inlet to an obliged turbulent

flowing fuel path running from the fuel inlet to the fuel outlet between the walls and the cylindrical hub; and

two opposed magnetic elements located within the housing element and around the cylindrical hub, the two opposed magnetic elements inducing a magnetic field between the two opposed magnetic elements along the obliged turbulent flowing fuel path between the walls and the cylindrical hub.

20. (new) The device of claim 19, wherein,

the two opposed magnetic elements further comprise turbulence projecting elements that extend into the obliged turbulent flowing fuel path.

21. (new) The device of claim 19, wherein,

the two opposed magnetic elements each comprise a ferromagnetic ring mounting permanent magnets, the magnets extending into the obliged turbulent flowing fuel path.